

Appendix B

Example Pumpstation Interface Control Messages

The following is a general hello message that may be used by a pumpstation site manager

5 to “ping” sites in order to determine their current availability.

Request: FTXHELLO [| mid= {message id}]

Response: FTXSUCCESS | name= {site name} | type= {site type} [| rid= {message id}]

10 **Where:** {site name} = text description of this site (e.g. “My Test Station Controller”)
{site type} = text identifying type of site (e.g. “FTX Station Controller”)
{message id} = message identification tag

15 The following is the message may be used to request a register value from a station controller. If the security information qualifies for Read access, the value is returned.

Request: FTXGET | name= {reg key} | sec= {security info} [| mid= {message id}]

FTXGET | reg= {reg name} | sec= {security info} [| mid= {message id}]

20 **Response:** FTXSUCCESS | value= {reg value} [| rid= {message id}]

FTXFAILED | comment= {failure reason} [| rid= {message id}]

25 **Where:** {reg key} = key name for the desired station information (see table below)
{reg name} = key name for the desired station information (see table below)
{reg value} = value for the given register
{security info} = one of the following formats,
 user= {user name} | pwd= {user password}
 sec= {CRC-32 of {user name} + {user password}}
 {message id} = [optional] message identification tag
 {failure reason} = one of,
 “Missing or Invalid Register”
 “Not Authorized for the Message Type”

35 The following message may be used to set a register value in a station controller. If the security information qualifies for Write access, the value is written.

Request: FTXSET | name= {reg key} | value= {reg value} | sec= {security info} [| mid= {message id}]

40 FTXSET | reg= {reg name} | value= {reg value} | sec= {security info} [| mid= {message id}]

Response: FTXSUCCESS | value= {reg value} [| rid= {message id}]

FTXFAILED | comment= {failure reason} [| rid= {message id}]

Where:

{reg key} = key name for the desired station information (see table below)

{reg name} = key name for the desired station information (see table below)

{reg value} = value for the given register

{security info} = one of the following formats,

user= {user name} | **pwd**= {user password}

sec= {CRC-32 of {user name} + {user password}}

{message id} = [optional] message identification tag

{failure reason} = one of,

“Invalid Register Specified”

“Missing Register or Value”

“Not Authorized for the Message Type”

The following table lists example station register keys, names, and descriptions for the FTXGET and FTXSET commands.

Reg Name	Reg Key	Reg Description
N7:190	Floating Setpnt	Floating Setpoint for PID
N21:0	CURRENT SETPT	Current Pressure Setpoint
N7:0	Zoid Msg #	Zoid MTR
N7:2	PLC_Seconds	seconds - PLC Time
N7:3	PLC_Minutes	Minutes - PLC Time
N7:4	PLC_Hours	Hours - PLC Time
N7:5	PLC_DyOfWeek	Day of Week - PLC Time
N7:6	PLC_Month	Month - PLC Time
N7:7	PLC_Date	Date - PLC Time
N7:60	RecordPeriod	Seconds Between Records (10-150)
N7:140	LO#1 START	Start Time for Lockout Period 1
N7:141	LO#1 END	Stop Time for Lockout Period 1
N7:142	LO#2 START	Start Time for Lockout Period 2
N7:143	LO#2 END	Stop Time for Lockout Period 2
N7:130	Sun LO Code	Sunday Lockout Enable
N7:131	Mon LO Code	Monday Lockout Enable
N7:132	Tue LO Code	Tuesday Lockout Enable
N7:133	Wed LO Code	Wednesday Lockout Enable
N7:134	Thu LO Code	Thursday Lockout Enable
N7:135	Fri LO Code	Friday Lockout Enable
N7:136	Sat LO Code	Saturday Lockout Enable
N10:0	DnStrm PSI	Downstream psi
N10:1	UpStrm PSI	Upstream psi
N10:2	Flow GPM	Flow
N10:5	flowrate2	Process Data - Channel 5
N10:8	motorrpm	Motor Speed
N20:0	NORM SETPT	Normal Pressure Setpoint
N20:1	Z1MaxComboNrml	Max Combo/VFD Pumps Normal
N20:2	Z1PmpsNrml	Zone 1 Pumps
N20:3	LO#1 SETPT	Setpoint Lockout Period 1

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N20:4	MAX Cmbo L1	Max Combo/VFD Pumps Lockout Period 1
N20:5	LO#2 SETPT	Setpoint Lockout Period 2
N20:6	MAX Cmbo L2	Max Combo/VFD Pumps Lockout Period 2
N21:2	Z1RunTmPmpCtrl2	Pump Control Word
N21:3	PBS 1stStrt	Pressure Below Setpoint to Start Combo 1
N21:4	SEC 1stStrt	Delay time to start Combo 1
N21:5	PAS 1stStop	Pressure Above Setpoint to Stop Combo 1
N21:6	SEC 1stStop	Delay time to Stop Combo 1
N21:7	PBS 2ndStrt	Pressure Below Setpoint to Start Combo 2
N21:8	SEC 2ndStrt	Delay time to start Combo 2
N21:9	PAS 2ndStop	Pressure Above Setpoint to Stop Combo 2
N21:10	SEC 2ndStop	Delay time to Stop Combo 2
N21:11	PBS 3rdStrt	Pressure Below Setpoint to Start Combo 3
N21:12	SEC 3rdStrt	Delay time to start Combo 3
N21:13	PAS 3rdStop	Pressure Above Setpoint to Stop Combo 3
N21:14	SEC 3rdStop	Delay time to Stop Combo 3
N21:15	Ovr P Setpt	Overpressure Accumulator Trip Setpoint
N21:16	DPDT Hold	DP/DT for Start Inhibit
N21:21	Combo Now	Current Running Combo
B74:0	StationFaults	Station Faults Word
B74:4	pumpFaults	Pump Faults Word
B74:9	conFeedBack	Contactors Feedback Word
B74:13	systemSwitch	System Switch settings
B3:2	METRIC UNITS SELECT	Selects Metric Units kPa and .1M ³ /h